Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

,				Complete if Known		
Substitute for form 1449/PTO				Application Number	10/628,875	
INFORMATION DISCLOSURE			LOSURE	Filing Date	July 28, 2003	
	MENT BY			First Named Inventor	Richard Christopher DECHARMS	
(Use a	s many <mark>she</mark> et	s as ne	cessary)	Art Unit	3737	
			Examiner Name	John Fernando Ramirez		
Sheet	1	Of	4	Attorney Docket Number	27969-705	

Examiner Initials*	Cite No.	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
dM_{\frown}		US-2002/0055675 A1	05/09/2002	Llinas, et al.	
		US-2002/0103428	08/01/2002	deCharms	
1		US-2002/0103429	08/01/2002	deCharms	
		US-2005/0283053	12/22/2005	deCharms	
1		US-5,184,074	02/01/1993	Arakawa, et al.	•
		US-5,215,095	06/01/1993	Preston, Myra S.	· · · · · · · · · · · · · · · · · · ·
		US-5,267,570	12/07/1993	Rosenfeld, J. Peter	
1		US-5,280,793	01/25/1994	Spano, Mark L.	
		US-5,450,855	09/01/1995	Rosenfeld	
		US-5,522,863	06/04/1996	Schneider, M. Brent	
		US-5,531,227	07/02/1996	Wolpaw, Jonathan	
		US-5,603,322	02/18/1997	Jesmanowicz, et al	
		US-5,638,826	06/17/1997	Brudny, Joseph	
		US-5,810,747	09/22/1998	Hoffberg, Steven M.	
		US-5,844,241	12/01/1998	Liu, et al	
		US-5,875,108	02/23/1999	Giuffre, Kenneth	
		US-5,887,074	03/23/1999	Lai et al.	
		US-5,899,867	05/01/1999	Collura	— ; · · · · · · · · · · · · · · · · · ·
		US-5,995,857	11/01/1999	Macvicar, Brian A.	
		US-6,042,548	03/28/2000	Hochman, Daryl	
		US-6,066,163	05/23/2000	John	
		US-6,161,031	12/12/2000	Rise, Mark	
11/		US-6,234,979	05/22/2001	Merzenich	
		US-6,275,723	08/14/2001	Ferris, et al.	

*EXAMINER: Initial firefrence considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Parent Documents at www.uspto.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). 'For Japaness patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to correptete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Examiner

Signature

Date

Considered

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

				Complete if Known		
Substitute for form 1449/PTO				Application Number	10/628,875	
INFORMATION DISCLOSURE			LOSURE	Filing Date	July 28, 2003	
			LICANT	First Named Inventor	Richard Christopher DECHARMS	
(Úse as	many shee	ts as ne	cessary)	Art Unit	3737	
		Examiner Name	John Fernando Ramirez			
Sheet	2	Of	4	Attorney Docket Number	27969-705	

		U.S. P.	ATENT DOC	UMENTS	
Examiner Initials	Cite No.	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
(hel)		US-6,289,232 B1	09/11/2001	Jakob, et al.	
TIP		US-6,356,781	03/12/2002	Lee et al.	-
		US-6,370,416	04/09/2002	Rosenfeld, Daniel	
		US-6,374,140	04/16/2002	Freer, Peter	
. \		US-6,377,833	04/01/2002	Albert	
		US-6,391,871	05/21/2002	Olney et al.	
		US-6,402,520	06/11/2002	Heid, Oliver	
		US-6,463,315	10/08/2002	Klingberg, et al.	
		US-6,477,399	11/05/2002	Biswal, et al.	
		US-6,517,812	02/11/2003	Breiter, et al.	
	٠.	US-6,539,246	03/25/2003	Heid, Oliver	
		US-6,539,263	03/25/2003	Schiff, Nicholas	·
		US-6,597,937 B2	07/22/2003	Liu, et al.	
		US-6,687,525 B2	02/03/2004	Llinas, et al.	
		US-6,711,430	03/23/2004	Ferris, et al.	·

	FOREIGN PATENT DOCUMENTS								
Examiner Initiats*	Cite No.1	Foreign Patent Document Country Code ³ – Number ⁴ – Kind Code ³ (If brown)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶			
(dus		EP 0512577	11/11/1992	Somatics, Inc.					
7/		EP 1128188	08/29/2001	Marconi Medical Systems, Inc.					
		WO 97/10747	03/27/1997	Cleveland Medical Devices, Inc.	·				
1		WO 97/26823	07/31/1997	University of Kansas					
		WQ 99/63355	12/09/1999	The Government of USA					

Examiner

Date Considered

Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the paperwork Reduction Act of 1995, no persons required to respond to a collection of information unless it contains a valid OMB control number.

				Complete if Known			
Substitute for form 1449/PTO				Application Number	10/628,875		
INFORMATION DISCLOSURE		Filing Date	July 28, 2003				
	MENT BY			First Named Inventor	Richard Christopher DECHARMS		
(Use a	s many <mark>shee</mark>	ts as nec	essary)	Art Unit	3737		
_				Examiner Name	John Fernando Ramirez		
Sheet	3	Of	4	Attorney Docket Number	27969-705		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Tو
as		Arfanakis, Konstantinos, Cordes, Dietmar, Haughton, Victor M., Moritz, Chad H., Quigley, Michelle A., and Meyerand, Mary E., "Combining Independent Component Analysis and Correlation Analysis to Probe Interregional Connectivity in fMRI Task Activation Datasets", Magnetic Resonance Imaging, Vol. 18, No. 8., pp. 921-930 (2000).	
		Bock, Michael, Schad, Lothar R., Müller, Edgar, and Lorenz, Walter J., "Pulsewave Velocity Measurement Using a New Real-Time MR-Method", Magnetic Resonance Imaging, Vol. 13, No 1, pp. 21-29 (1995).	
	_	D'Esposito, M., Detre, J. A., Aguirre, G. K., Stallcup, M., Alsop, D. C., Tippet, L. J. and Farah, M. J., "A Functional MRI Study of Mental Image Generation", Neuropsychologia, Vol. 35, No. 5, pp. 725-730 (1997)	
		Downing, Paul, Liu, Jia, Kanwisher, Nancy, "Testing Cognitive Models of Visual Attention with fMRI and MEG", Neuropsychologia, Vol. 39, pp. 1329-1342 (2001).	
		FERNANDEZ, et al. "Language Mapping in Less Than 15 Minutes: Real-Time Functional MRI during Routine Clinical Investigation", 2001, NeuroImage, Vol 14, pp. 585-594	
		Fong, Grace, Knutson, Brian, Adams, Charles, Hommer, Daniel, "Event-Related fMRI Reveals Distinct Neural Correlates of Reward Anticipation versus Feedback", NeuroImage, Vol. 13, No. 6, Part 2 of 2 Parts (2001).	
		J.T. Voyvodic, "Real-Time fMRI Paradigm Control, Physiology, and Behavior Combine with Near Real-Time Statistical Analysis", 1999, NeuroImage, Vol 10, pp. 91-106	
		Kotchoubey et al., "A New Method For Self-Regulation of Slow Cortical Potentials in a Timed Paradigm", Applied Psychophysiology and Biofeedback, Vol. 22, No. 2, pp. 77-93 (1997).	
		Ngan, Shing-Chung, Auffermann, William F., Sarkar, Shantanu, and Hu, Xiaoping, "Activation Detection in Event-Related fMRI Data based on Spatio-Temporal Properties", Magnetic Resonance Imaging, Vol. 19, No. 9, pp. 1149-1158 (2001).	
		Pantel, J, Schröder, J, Schad, L.R., Friedlinger, M., Knopp, M.V., Schmitt, R., Geissler, M., Blüml, S., Essig, M. and Sauer, H., "Quantitative Magnetic Resonance Imaging and Neuropsychological Functions in Dementia of the Alzheimer type", Psychological Medicine, Vol.	

				-a	
Examiner		Vair hill	Date //	IVI	01
Signature (1901	7	Considered ///	\&\/	\wp /
EVANIMED. TELLIS	C	The state of the s	SEAGRED (AA D. 11 1 1 10		

^{*}EXAMINER: Initial if pference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ²Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent document, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ³Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

18 you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the paperwork Reduction Act of 1995, no persons required to respond to a collection of information unless it contains a valid OMB control number.

				Complete if Known		
Substitute for form 1449/PTO				Application Number	10/628,875	
INFORM	INFORMATION DISCLOSURE			Filing Date	July 28, 2003	
			LICANT	First Named Inventor	Richard Christopher DECHARMS	
(Use a	s many shee	is as ne	cessary)	Art Unit	3737	
			Examiner Name	John Fernando Ramirez		
Sheet	4	Of	4	Attorney Docket Number	27969-705	

	NON PATENT LITERATURE DOCUMENTS	
Examiner Cite Initials* No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	27, pp. 221-229 (1997).	
Chif	Paus, Tomáš, "Imaging the Brain Before, During, and After Transcranial Magnetic Stimulation", Neuropsychologia, Vol. 37, pp. 219-224 (1999).	-
	Schröder, Johannes, Essig, Marco, Baudendistel, Klaus, Jhan, Thomas, Gerdsen, Ingo, Stockert, Andreas, Schad, Lothar R. and Knopp, Michael V., "Motor Dysfunction and Sensorimotor Cortex Activation Changes in Schizophrenia: A Study with Functional Magnetic Resonance Imaging", NeuroImage, Vol. 9, pp. 81-87 (1999).	
	Siniatchkin, Michael, Kropp, Peter and Gerber, Wolf-Dieter, "Neurofeedback The Significance of Reinforcement and the Search for an Appropriate Strategy for the Success of Self-regulation", Applied Psychophysiology and Biofeedback, Vol. 25, No. 3, pp. 167-175 (1998).	
	Thompson, L. and Thompson M., "Neurofeedback Combined with Training in Metacognitive Strategies: Effectiveness in Students with ADD", Applied Psychophysiology and Biofeedback, Vol. 23, No. 4, pp. 243-263 (1998).	
	TONI, et al. The Time Course of Changes during Motor Sequence Learning: A Whole-Brain fMRI Study. Neuroimage. 1998; Vol. 8: 50-61.	
	Wilding, Edward L., "Event-Related Functional Imaging and Episodic Memory", Neuroscience & Biobehavioral Reviews, Vol. 25, pp. 545-554 (2001).	
7	Yoo, Seung-Schik, Guttmann, Charles R. G., Zhao, Lei and Panych, Lawrence P., "Real-Time Adaptive Functional MRI", NeuroImage, Vol. 10, pp. 596-606 (1999)	
7	Zacks, Jeff, Rypma, Bart, Gabrieli, J.D.E., Tversky, Barbara, Glover, Gary H., "Imagined Transformations of Bodies: An fMRI Investigation", Neuropsychologia, Vol. 37, pp. 1029-1040 (1999).	

Examiner Signature Date Considered Door

^{*}EXAMINER: Initial if afterence considered whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Parent Documents at www.uspto.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter cide (WIPO Standard ST.3). 'For Japanese patent document, the indication of the year of the reign of the Emperor must precode the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language Translation is strached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark (Office, P.O. Box 1450, Abranadria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Abranadria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE to a collection of information unless it contains a valid OMB control number.

 :				Con	Complete if Known		
Substitute for form 1449/PTO				Application Number	10/628,875		
INFORMATION DISCLOSURE			LOSURE	Filing Date	July 28, 2003		
			LICANT	First Named Inventor	Richard Christopher deCharms		
(Use as	s many shee	is as nec	cessary)	Art Unit	3737		
			Examiner Name	John Fernando Ramirez			
Sheet	1	Of	1	Attorney Docket Number	27969-705		

	U.S. PATENT DOCUMENTS									
Examiner / Initials*	Cite No. ³	Document Number Number-Kind Code ² (if known)	MM-DD-YYYY		Pages, Columns, Lines, Whe Relevant Passages or Releva Figures Appear					
IM	1.	US 2006/0078183	04/13/2006	deCharms						
$\gamma_1 r$	2.	US 4,919,143	04/24/1990	Ayers						
	3.	US 4,983,917	01/08/1991	Le Roux						
	4.	US 4,993,414	02/19/1991	Macovski, et al.						
	5.	US 5,190,744	03/02/1993	Rocklage, et al.						
	6.	US 5,195,524	03/23/1993	Takiguchi, et al.						
	7.	US 5,227,725	07/13/1993	Cory, et al.						
	8.	US 5,243,283	09/07/1993	Tokunaga, et al.						
	9.	US 5,281,916	01/25/1994	Hinks, et al.						
	10.	US 5,406,957	04/18/1995	Tansey						
7/	11.	US 6,097,981	08/01/2000	Freer						
W	12.	US 6,321,105	11/20/2001	Jenkins, et al.						

FOREIGN PATENT DOCUMENTS						
xaminer Initials	Cite No.1	Foreign Patent Document Country Code ³ – Number ⁴ – Kind Code ³ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	ľ
	13.	WO 2002/061457	08/08/2002	deCharms		
						F
				,		
		,		,		

Examiner Date Considered Signature

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 'For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete his form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.